

REMARKS

Claims 1-5 and 13-17 are pending in the instant application. New claims 25-29 are added. Applicant respectfully requests reconsideration and allowance of this application in view of the following remarks.

Claims 1-5 and 13-17 were rejected under 35 USC 112, first paragraph, as failing to comply with the enablement requirement, particularly with respect to the limitation “receiving respectively each of a primary, a secondary, and a tertiary synchronization code in parallel.” It appears that the examiner takes issue with the designations “respectively” and “in parallel”. Independent claim 1 has been amended to recite “receiving ~~respectively~~ each of a primary, a secondary and a tertiary synchronization code ~~in parallel over respective channels~~ during a first symbol time in each of said predetermined number of time slots.” Support for the amended wording is located in the application as filed, for example, FIG. 5.

The office action also takes issue with claim 13 as including the same “receiving respectively a primary, a secondary, and a tertiary synchronization code in parallel ...” limitation. First, claim 13 instead recites “transmitting,” not “receiving.” Nevertheless, claim 13 has been amended to recite “transmitting ~~respectively a primary, a secondary and a tertiary~~ synchronization code ~~in parallel over respective channels~~ a primary synchronization channel during a first symbol time in each of said time slots; transmitting a secondary synchronization code over a secondary synchronization channel during the first symbol time in each of said time slots; and transmitting a tertiary synchronization code over a tertiary synchronization channel during the first symbol time in each of said time slots”. Support is located on page 6, lines 22-26. It is respectfully requested that the rejection under 35 USC 112, first paragraph be withdrawn, with respect to the amended claims.

Claims 1-5 and 13-17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Allegedly Admitted Prior Art ("AAPA") in view of U.S. Patent No. 6,185,244, Nystrom et al. ("Nystrom"), further in view of U.S. Patent No. 6,385,264, Terasawa et al. ("Terasawa"). The claims have not been amended to overcome this rejection, and the rejection is respectfully traversed.

It is respectfully submitted that Terasawa bears a filing date of June 8, 1999, which is subsequent to the effective filing date of the subject application of October 16, 1998 since the invention as recited is fully disclosed in the priority document filed on that date. A discussion of support in the provisional document with respect to earlier versions of the claims is located in applicant's response filed 13 November 2007. Accordingly, it is respectfully submitted that Terasawa is not prior art with respect to the present application.

Since Terasawa is not prior art, it is respectfully submitted that the rejection was improvident and should be withdrawn.

New claims 25-29 are added. Support for new claim 26 is located on page 7, lines 24-29 ("... the mobile receiver attempts to match the TSC with a match filter circuit as in FIG. 2. The match filter, however, fails to detect a match with the TSC null set ... In the absence of a TSC signal from the threshold comparator circuit, the mobile receiver performs frame synchronization and matches the SSC code group during second stage acquisition without the TSC.") and FIG. 7. Support for new claims 25 and 27 is located on page 7, lines 9-14 ("A preferred embodiment of the present invention transmits sixteen comma free code sequences from the set {SC₁, SC₂, ..., SC₁₇} on the secondary synchronization channel. ... The present invention optionally transmits comma free code sequences from the set {SC₁₈, SC₁₉, ..., SC₃₄} on the tertiary synchronization channel..."). Support for new claim 28 is located on page 8, lines 15-21 ("The mobile receiver

uses the TSC match to synchronize the frame of the received signal. The receiver then uses the TSC code to determine the proper frame offset of the code group on the SSC. ... Thus, the mobile receiver uses the TSC to provide both frame synchronization and partial synchronization code group identification.”)

New claim 26 recites “detecting whether the tertiary synchronization code indicates null, obtaining a frame timing from the detected tertiary synchronization code instead of the secondary synchronization code when the detected tertiary synchronization code indicates not null, and obtaining the frame timing from the secondary synchronization code when the detected tertiary synchronization code indicates null.” Consequently, the frame timing can be obtained from the TSC when it is present and a large number of SSC codes can be used since no frame timing needs to be done for the SSC; or the frame timing can default back to the SSC if there is no TSC. This enlarges the number of unique code words possible. For these additional reasons, as well as the reasons given above, claim 26 is believed to be allowable over the references.

New claims 25 and 27 recite that “the secondary synchronization codes and the tertiary synchronization codes identify subsets of code, the subsets being disjoint and of the same size.” Because the sets are balanced in size, the number of code words being matched during the frame synch stage and the code group ID stage are balanced, yielding better overall performance. For these additional reasons, as well as the reasons given above, claims 25 and 27 are believed to be allowable over the references.

New claims 28 and 29 recite that “the secondary synchronization code and the tertiary synchronization code together provide a group identification, and the tertiary synchronization code alone provides the frame synchronization.” Consequently, the frame timing can be indicated in the TSC and a large number of SSC codes can be used since no frame timing needs

to be done for the SSC. This enlarges the number of unique code words possible. For these additional reasons, as well as the reasons given above, claims 28 and 29 are believed to be allowable over the references.

In view of the foregoing, the applicant submits that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

If there are any problems with the payment of fees, please charge any underpayments and credit any overpayments to Texas Instruments Incorporated's Deposit Account No. 20-0668.

This Amendment is submitted by the undersigned registered patent attorney in accordance with 37 CFR 1.34.

Respectfully submitted,



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